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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,813	11/29/2001	James W. Allen	AUS920010911US1	5267

7590

04/13/2004

Gregory W. Carr  
Carr & Storm, L.L.P.  
670 Founders Square  
900 Jackson Street  
Dallas, TX 75202

EXAMINER

KNOLL, CLIFFORD H

ART UNIT

PAPER NUMBER

2112

4

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n No.

09/997,813

Applicant(s)

ALLEN, ET AL.

Examiner

Clifford H Knoll

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2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claims 1-3, 7-9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Munguia (US 6081859).*

Regarding claims 1 and 7, Munguia discloses an arbiter that varies a time between a request for the switched system resources as a function of a number of requests the system indicates to be retried (e.g., col. 7, lines 18-25).

Regarding claims 2, 8, and 13, Munguia also discloses first increasing the time between requests until the system no longer indicates to retry the request and the bus arbiter (e.g., compare Figures 3A and 3B), then decreasing the time between requests after a number of requests processed without the system indicating to retry any requests (e.g., col. 9, lines 28-31).

Regarding claims 3 and 9, Munguia discloses increasing a time between a request from a microprocessor connected to the switched system to use resources of a switch until the switch can process the request (e.g., Figure 3); and decreasing the time between the requests from the microprocessors connected to the switched system to

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use resources of the switch as a function of some number of requests processed without the bus arbiter having to increase the time between requests from the microprocessors connected to the switched system (e.g., col. 9, lines 28-31).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Claims 4-6, 10-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munguia in view of Keller (US 2004/0024945).*

Regarding claims 4, 10, and 14, Munguia discloses issuing at least one request from the microprocessor to the system switch (e.g., col. 7, lines 63-64); responsive to a signal from the system switch indicating it lacks resources to process a command, increasing the number of bus clocks to wait between issuance of requests from microprocessors by the number of bus clocks defined as the first parameter; waiting the increased number of bus clocks between issuance of requests to the switch (e.g., Figure 3A, 3B). Munguia discloses the use of a latency statistic for determining when to decrease responsive to a second parameter (e.g., col. 7, lines 34-40), but does not

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expressly mention the particular specifics of counter comparing and resetting; however, this particular embodiment is disclosed by Keller. Keller discloses the second parameter and comparing the value in the counter to the second parameter (paragraph [0044], "unless a predetermined number of latencies indicate that a change is in order"); and when the value in the counter is equal to the value of the second parameter, decreasing the number of bus clocks between issuance of requests to the switch from microprocessors connected to the switched system by the amount equal to the number of bus clocks defined as the first parameter and resetting the value in the counter to zero (e.g., paragraph [0044], "change the retry latency if both of the previous latencies indicate" which counter is set to zero when the latency is increased). It would have been obvious to combine Keller with Munguia because Keller teaches particular advantageous implementations of determining when to decrease latencies using a statistic of previous latency data, which was disclosed by Munguia absent the particulars. Therefore it would have been obvious to one of ordinary skill in the art to combine Keller with Munguia to obtain the claimed invention.

Regarding claims 5 and 11, Munguia also discloses the first parameter is defined at system power-on (e.g., col. 8, lines 45-47).

Regarding claims 6 and 12, Munguia does not expressly mention the predetermined value of the second parameter at power on; however Keller discloses this detail. Keller discloses a predetermined number of latencies (e.g., paragraph [0044], "predetermined number").

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jaramillo (US 6598104) discloses an adaptive retry system but modifies arbitration policy to do so. Chambers also discloses an adaptive retry system, but no particular statistic for adapting is taught (see col. 6, lines 6-16).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MARK H. RINEHART  
SUPERVISOR EXAMINER  
TECHNICAL STAFF 2100